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# **ASX RELEASE**

## Further significant uranium results from auger drilling at Mkuju in Tanzania

## **Highlights**

 Completion of initial exploration program continues at the Mkuju Uranium Project, in southern Tanzania. Results from recent auger drilling has returned further high grade U<sub>3</sub>O<sub>8</sub> results including:

MKAU23\_020 4m @ 598ppm U<sub>3</sub>O<sub>8</sub> incl 1m @ 1896ppm U<sub>3</sub>O<sub>8</sub>

MKAU23\_035 2m @ 110ppm U<sub>3</sub>O<sub>8</sub>

MKAU23\_045 2m @ 169ppm U<sub>3</sub>O<sub>8</sub> incl 1m @ 283ppm U<sub>3</sub>O<sub>8</sub>

- Mkuju comprises a 1070sq km licence area immediately adjacent to the world class Russian-owned Nyota uranium project.
- A hand-held spectrometer is also being used as part of the Mkuju program and is producing highly elevated radiation readings in and around the same sample areas.
- These results provide further confirmation of potentially significant uranium mineralisation across the historical radiometric survey conducted over the Mkuju Project area.
- Both auger and diamond drilling programs ceased for the Christmas/New Years, with activities scheduled to re-commence in early January 2024 (weather permitting).

### **Cautionary Statement**

The Company uses a Delta Olympus portable hand-held pXRF analyzer and an RS230 gamma ray spectrometer to screen all samples for mineralisation before submitting samples to the lab for assay. This allows for some understanding of the distribution of mineralisation prior to sampling to better ensure that samples submitted for analysis are representative of the type and style of mineralisation. The hand-held XRF and spectrometer units provide confirmation that mineralisation is present

however it is not an accurate determination of the elemental concentration within the sample anlaysed. Limitations include: very small analysis window, possible inhomogeneous distribution of mineralisation, analytical penetration depth, possible effects from irregular rock surfaces. Accordingly, results obtained from the hand-held pXRF and spectrometer units are indicative only and may not be representative of elemental concentration within the material sampled. The pXRF and spectrometer readings published in this release are subject to confirmation by chemical analysis from an independent laboratory.

AuKing Mining Limited (ASX: AKN) continues to identify uranium mineralization as part of its Stage 1 exploration and drilling program at the Mkuju Uranium Project in southern Tanzania.

**AuKing's CEO, Mr Paul Williams,** said Mkuju was emerging as a possible major extension of the world class nearby Nyota Uranium Project that was sold by previous owner Mantra Resources in 2011 for \$1.16Bn.

"We continue to return very promising uranium results from our exploration and drilling, including these most recent results from auger drilling in the area. Unfortunately, the technical problems continued to hamper the ability of the auger to drill to our target depths of 30m and that unit has been withdrawn from the field for major servicing. The diamond drilling rig that was mobilized in mid-November was unable to start drilling until late December due to technical issues and breakdowns. The crew are planning to mobilise in early January and will try to complete as many metres as possible before the rains come," Mr Williams said.

"Despite some frustrating issues with our drilling rigs over recent months, AuKing's exploration team has been successful in establishing the existence of areas of significant uranium mineralization across the more than 1,000 square kilometres of licence holdings at Mkuju. We have learned a lot about the operating conditions at Mkuju in recent months and established the basis for a significant and systematic drilling program in 2024," he said.



Figure 1 – Mkuju Project Location

### Mkuju Auger Drilling Results

A summary of the auger drilling results achieved from the Stage 1 exploration program at Mkuju are highlighted below and also set out in full in Annexure A to this release:

Hole ID	From (m)	To (m)	Width	Grade (U ppm)
MKAU23_011	10	11	1	38
MKAU23_014	0	1	1	159
MKAU23_018	2	6	4	48
MKAU23_020	0	4	4	598
Incl.	0	1	1	1896
MKAU23_035	7	9	2	110
MKAU23_042	6	7	1	51
MKAU23_045	0	2	2	169
Incl.	0	1	1	283

Table 1 – Mkuju highlighted auger drilling results

A number of observations need to be made in relation to the auger drilling program:

- Overall, the auger drilling program comprised 55 holes for a total of 547m drilled, with the deepest hole being 18m and an average hole depth of 10m;
- AuKing's planned drilling for the auger rig was to achieve depths of 30m per hole and that based on historical drilling in the area (including at Nyota), uranium mineralization was expected to be observed if these drilling depths were achieved;
- However, as noted previously, the auger drilling rig has experienced several mechanical faults and other problems since arriving to site in August 2023 and these issues have prevented the 30m target depth being achieved for *any* drill hole;
- AuKing's exploration team believes this is the major reason why most of the auger holes did not identify uranium mineralisation – the holes were simply not deep enough;
- the auger rig has now been removed from site and is undergoing a major overhaul in Dar es Salaam. Whether it returns to the Mkuju site will be a matter for AuKing to consider as it would appear to make more sense for future drilling to be undertaken by way of air core/RC drilling rig; and
- Despite the ongoing mechanical problems, AuKing has still been able (in some of the drill holes) to identify significant uranium mineralization, including over to the eastern part of the Mkuju licence area. As has been the case with the previously-reported rock chip and soil sample results, these auger drill results provide further correlation with the historical radiometric survey. More importantly, the results provide a strong basis for the next stage of proposed drilling at Mkuju which is planned for the first half of 2024, as soon as access is permissible after the wet season has concluded.

### Diamond drilling at Mkuju

AuKing sought to mobilise the track-mounted diamond drilling rig in early November 2023 in an attempt to carry out a few quick drill holes to a depth of approximately 100m in order to

test uranium mineralisation at certain priority target holes. Unfortunately, the rig arrived at site in mid-November and then had several days tramming (on its own tracks) to the first drill hole location. Mechanical breakdowns then occurred over the next few weeks with the rig and then final set-up delays meant that drilling did not commence on the first proposed hole until the week before Christmas. A total of 51m of diamond drilling was completed before the crew departed site for the Christmas/New Year vacation period. At this stage the crew is planning to return to site in the next few days and, if the weather permits, drilling can resume. However, it is expected that heavier rains will commence over the next few weeks and the prospect of significant diamond drilling at this time is very limited.

The delays experienced with the diamond rig were frustrating and unfortunate and point to a greater likelihood that a track-mounted air core/RC drilling rig will be utilized for the planned future drilling at Mkuju.



Figure 2 – Location of highlighted Mkuju auger drilling results



# This announcement has been authorised by Paul Williams, CEO, AuKing Mining Limited.

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### **About AuKing Mining**

AuKing Mining (ASX:AKN) is a mining exploration company focused on uranium, copper and zinc projects in both Tanzania and Australia.

AuKing is focussed on the exploration and development of six uranium and copper projects in Tanzania including:

*Mkuju* – near to the world class Nyota uranium project in southern Tanzania; the subject of significant previous exploration

Manyoni/Itigi - the subject of significant exploration situated in central Tanzania, just west of Dodoma

*Mpanda/Karema* – prospective copper areas in western Tanzania that were the subject of historic mining operations but largely untouched by modern exploration methods.

The Company also holds the Koongie Park Copper Zinc Project in Western Australia's Halls Creek Region hosts a JORC resource and is neighboured by several significant mining and development operations including Nicholson's Gold Mine and Savannah Nickel Mine. Koongie Park has already been the subject of significant exploration drilling and analysis since the 1970's, hosting over 300 RC and diamond drill holes consisting of more than 60,000m of drilling in total.

AuKing recently announced the results of its Koongie Park Scoping Study on a proposal to commence mining operations around a central processing facility at Sandiego.

For further information www.aukingmining.com



#### **Competent Persons' Statement**

The information in this report that relates to exploration results at the Mkuju Project is based on information compiled by Mr Chris Bittar who is a member of the Australasian Institute of Mining and Metallurgy. Mr Bittar is an employee of AuKing Mining Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Bittar consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

HoleID	DEPTH	EAST (UTM37SWGS84)	NORTH (UTM37SWGS84)	RL	Results (NSR = No Significant results)
MKAU23_001	9	253178	8858797	665	NSR
MKAU23_002	15	253181	8858793	665	NSR
MKAU23_003	14	253187	8858789	665	NSR
MKAU23_004	13	253560	8858792	658	NSR
MKAU23_005	5	253982	8858791	637	NSR
MKAU23_006	6	254389	8858798	627	NSR
MKAU23_007	12	252577	8859616	660	NSR
MKAU23_008	9	253168	8859618	660	NSR
MKAU23_009	14	253581	8859622	639	NSR
MKAU23_010	2	253073	8860413	647	NSR
MKAU23_011	13	253061	8860411	646	refer to Figure 1
MKAU23_012	7.5	252649	8860417	647	NSR
MKAU23_013	3	253976	8859612	625	NSR
MKAU23_014	3.8	243828	8858849	723	refer to Figure 1
MKAU23_015	12	243679	8858061	705	NSR
MKAU23_016	8	243081	8855926	757	NSR
MKAU23_017	7	253979	8859609	625	NSR
MKAU23_018	9	245184	8863469	705	refer to Figure 1
MKAU23_019	11	245188	8863463	705	NSR
MKAU23_020	13	245343	8863664	702	refer to Figure 1
MKAU23_021	12	245548	8863517	690	NSR
MKAU23_022	12	245948	8863508	677	NSR
MKAU23_023	18	244552	8863519	701	NSR
MKAU23_024	15	244968	8863505	698	NSR
MKAU23_025	7	244571	8861243	682	NSR
MKAU23_026	11.5	243147	8858848	695	NSR
MKAU23_027	12.5	242898	8858069	709	NSR
MKAU23_028	8	253070	8859916	662	NSR
MKAU23_029	11	253279	8859089	651	NSR

### ANNEXURE A – Mkuju auger drilling results (Full Table)

MKAU23_030         12         244813         8853192         719           MKAU23_031         9         245421         8853179         716	NSR NSR
MKAU23_031 9 245421 8853179 716	NSR
MKAU23_032 8 245631 8853189 704	NSR
MKAU23_033 10 246419 8853172 705	NSR
MKAU23_034 9 244627 8860951 698	NSR
MKAU23_035 11 244219 8860514 698	refer to Figure 1
MKAU23_036 11 244498 8858007 735	NSR
MKAU23_037 9 244097 8858024 725	NSR
MKAU23_038 11 244229 8858838 722	NSR
MKAU23_039 11 244630 8858835 714	NSR
MKAU23_040 9 243297 8858029 725	NSR
MKAU23_041 13 242825 8858810 699	NSR
MKAU23_042 9 242878 8858130 702	refer to Figure 1
MKAU23_043 13 244087 8856011 740	NSR
MKAU23_044 11 244574 8856004 732	NSR
MKAU23_045 9 245307 8863557 744	refer to Figure 1
MKAU23_046 11 243695 8855999 711	NSR
MKAU23_047 11 242794 8856820 747	NSR
MKAU23_048 2 244396 8853978 742	NSR
MKKAU23_001 10 252192 8853198 711	NSR
MKKAU23_002 8 252402 8853734 701	NSR
MKKAU23_003 7.5 252634 8854139 699	NSR
MKKAU23_004 11 252963 8854500 694	NSR
MKKAU23_005 11 253092 8854993 690	NSR
MKKAU23_006 10 253099 8855457 690	NSR
MKKAU23_007 9 253296 8855859 685	NSR
MKKAU23_008 6 253496 8856181 672	NSR

### JORC Code, 2012 Edition – Mkuju auger drilling program Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Criteria Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 0.5 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger,</li> </ul>	<ul> <li>AKN utilised Auger drilling at Mkuju to obtain individual 1m samples, which were reduced in size to produce a sample of approximately 1 to 2kg in weight. The samples were labelled prior to dispatch to the analytical laboratory, pulverised to produce a pulp sample for analysis.</li> <li>The Auger drilling results referred to in the accompanying release were obtained entirely by Auger drilling with the samples collected by scoop and placed into a plastic sample for XRF analysis and submission to the lab.</li> <li>The samples were analysed using a handheld Olympus Delta XRF unit.</li> <li>Auger drilling was completed with 4WD-mounted auger rig.</li> </ul>
	Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>samples will also be weighed at the lab when submitted for analysis.</li> <li>Recovery levels are considered suitable and appropriate for this method of sampling.</li> <li>No relationship between sample recovery and grade has been yet observed and no sample bias is believed to have occurred.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	

Criteria	JORC Code explanation	Commentary
Criteria Sub- sampling techniques and sample preparation	<ul> <li>JORC Code explanation</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to</li> </ul>	<ul> <li>Commentary</li> <li>The preparation of the samples follows industry practice for XRF sampling. All samples were analysed in the sample bag under controlled conditions.</li> <li>Field QAQC was undertaken using CRM's.</li> <li>The sample sizes are considered appropriate given the nature and grain size of the material being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>All XRF readings from Mkuju were conducted in the field using an Olympus Delta XRF.</li> <li>Samples were analysed in a clean, contamination free environment.</li> <li>Suitable settings and standards were used on a daily basis to calibrate the unit.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The grade of significant intersections has been verified by other senior geological personnel associated with the project.</li> <li>The drilling database is managed by Newexco Exploration, a Perth based exploration consultancy group. All drilling data resides on their NXDB database management system. Newexco is responsible for uploading all analytical and other drilling data and producing audited downloaded data for use in various mining software packages. The NXDB system has stringent data entry validation routines.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All location data is collected in WGS84/UTM Zone 37s.</li> <li>No downhole survey methods were completed.</li> <li>Auger Drill collars were surveyed with a handheld GPS unit.</li> <li>The RL for each collar was based on topographic data over the project area.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drilling was a first pass drilling program for the area.</li> <li>Drilling and sampling targeted significant anomalies identified in regional radiometric surveys completed in mid-2007.</li> <li>Samples were collected on 1m intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	No orientation bias was considered.
Sample security	The measures taken to ensure sample security.	<ul> <li>The chain of custody is managed by AKN. The samples will be freighted directly to the relevant laboratories for analysis.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No independent audit or review has been undertaken to date.

### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Mkuju project is located on PL12184, PL12185, PL12186, PL12187, PL12189, PL12192, PL12606, PL12607, PL12608 and the tenement package is in good standing.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Mantra Resources completed a high- resolution helicopter-borne radiometric survey over the entire Mkuju River Project area in mid-2007 which resulted in the identification of several uranium anomalies requiring field evaluation.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Geological mapping, ground radiometrics and trenching was completed on various target areas. Although preliminary in nature, the field observations were positive with visible uranium mineralisation being recorded in trenches at a number of the targets.</li> <li>The regional geology is dominated by Karoo Basin siltstone and sandstone sediments.</li> </ul>
		• The mineralisation is interpreted to be analogous to 'roll-front' uranium deposits, specifically hosted in muti- stacked Karoo Basin sandstone and siltstone sequences.
Drill hole information	<ul> <li>A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Auger drill hole collar locations and a summary of the significant intersections are shown in Appendix 1</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Intersection calculations are weighted by sample length.</li> <li>Reported intersections are primarily based on a cut-off of 35ppm U and summarised in Table 1.</li> <li>A maximum of 2m of sub-grade (below cut-off) is incorporated into the reported composited intersections.</li> <li>No top cut has been applied.</li> </ul>
Relationship between mineralisation widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its</li> </ul>	<ul> <li>Intersection lengths are reported are downhole lengths.</li> <li>Mineralisation is interpreted to be flat lying, stacked sandstone and siltstone sequences.</li> </ul>

Criteria	JORC Code explanation	Commentary
intercept lengths	<ul> <li>nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	All auger drillholes are vertical (not inclined).
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Relevant diagrams have been included within the main body of text.
Balanced Reporting	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Anomalous XRF readings have been identified at Mkuju, these samples will be sent to the laboratory for an accredited assay, where the results will be tabulated for release.</li> <li>XRF readings should be considered a guide only.</li> <li>This reporting method has been deemed appropriate for this stage of the project.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	No other substantive data exists.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Once assay results have been received and reviewed, further drilling and geophysical work will be considered to assess the potential of the Mkuju project.</li> </ul>